

WHAT IS CLAIMED IS:

1. An image processing device for use with a machine for forming parts, comprising:

5 at least one sensor, wherein the parts formed by the machine are imageable by said at least one sensor;

means for wirelessly transmitting the image captured by said at least one sensor;

means for analyzing the image, received from said transmitting

10 means, wherein said means for analyzing indicates the presence, absence or quality of at least one of the parts; and

means for wirelessly transmitting said indication to the machine, wherein the operation thereof is responsive to said indication.

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2. The wireless image processing device of Claim 1, wherein said means for analyzing the image is a program.

3. The wireless image processing device of Claim 1, wherein said
20 means for analyzing the image is a programmable microprocessor.

4. The wireless image processing device of Claim 1, wherein said at least one sensor is at least one charge coupled device camera.

5. The wireless image processing device of Claim 1, wherein said at least one sensor is at least one near-infrared camera.

6. The wireless image processing device of Claim 1, wherein said at least one sensor is an optical imaging device capable of generating computer readable image data of a visual representation.

7. The wireless image processing device of Claim 1, wherein said means for wirelessly transmitting the image and said means for wirelessly transmitting said indication is a spread spectrum radio frequency signal.

8. The wireless image processing device of Claim 1, wherein said means for wirelessly transmitting the image and said means for wirelessly transmitting said indication is an infrared signal communication platform.

9. A part-forming machine, comprising:

a mold;

means for ejecting at least one of the parts from said mold; and means for controlling said ejecting means, wherein said means for controlling said ejecting means is a wireless image processing system having at least one sensor and at least one central processing unit.

10. The machine of Claim 9, wherein said ejecting means is at least one ram.

5 11. The machine of Claim 9, wherein said sensor is at least one complementary metal-oxide semiconductor (CMOS) imaging device.

12. The machine of Claim 9, wherein said sensor is at least one infrared sensor.

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13. The machine of Claim 9, wherein said at least one sensor and said at least one central processing unit of said wireless image processing system are integrated into at least one analytically-adept sensor/processor device.

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14. A machine for forming parts, comprising:

a mold having an interior and an exterior;

means for ejecting at least one of the parts from said mold;

means for controlling said ejecting means;

20 means for capturing an image;

a sensor device in wireless communication with said image capture means; and

means for analyzing the image captured by said sensor device, said analyzing means in wireless communication with said sensor

device, said analyzing means generating an indication of the presence, absence or quality of at least one of the parts, said analyzing means in wireless communication with said ejection means, wherein said ejection means is responsive to said indication.

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15. The machine of Claim 14, wherein said image capture means is at least one lens.

16. The machine of Claim 14, wherein said ejecting means is at least
10 one ram.

17. The machine of Claim 14, wherein said means for controlling said ejecting means is a programmable microprocessor.

15 18. The machine of Claim 14, wherein said analyzing means is a programmable microprocessor.

19. The machine of Claim 14, further comprising an infrared emitting source, wherein said infrared emitting source illuminates at near-
20 infrared frequencies.

20. A method of indicating the presence, absence and quality of a part in a part-forming machine, comprising the steps of:

a. acquiring an image of the part;

b. transferring said image to an image analyzer via wireless transfer means;

c. analyzing said image; and

d. sending a signal to a part-forming machine controller,
5 via wireless transfer means, wherein said part-forming machine controller is responsive to said signal from said image analyzer.

21. The method of Claim 20, wherein said wireless transfer means is a spread-spectrum radio frequency communication platform.

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22. The method of Claim 20, wherein said wireless transfer means is an infrared communication system.

23. A wireless image processing device for use with a machine
15 vision system, comprising:

at least one sensor, wherein at least one target is imageable by said at least one sensor;

at least one wireless transmitter for transmitting the image captured by said at least one sensor;

20 at least one image analyzer for analyzing the image received from said at least one wireless transmitter for an indication of the status of said at least one target; and

at least one wireless transmitter for transmitting said indication of the status of said at least one target to a controller,

wherein said controller wirelessly signals at least one operational direction in response to said indication and said at least one operational direction controls performance of the machine having said machine vision system incorporated therewith.

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24. A wireless communication system for utilization with a machine having a vision system, comprising,

a sensory device, said sensory device acquiring visual data and wirelessly communicating said visual data to a controller;

10 a data analyzer, said data analyzer analyzing said visual data and wirelessly communicating a result to a controller; and

a controller, said controller wirelessly communicating a command signal to said sensory device and to the machine.

15 25. A sensory system for use with a machine, comprising,

at least one sensory device having wireless data communication capabilities; and

at least one host computer, wherein sensory information from said at least one sensory device is received and analyzed, and
20 wherein at least one task of the machine is directed thereby.

26. The sensory system of Claim 25, further comprising a wireless input/output controller for the machine.

27. A modular machine sensory system comprising,
a wireless image data acquisition and transfer system; and
a wireless input/output data transmission system.

5 28. An image processing system for use with a machine for forming
parts, said image processing system comprising:

at least one sensor having an analyzing means carried thereby,
wherein the parts formed by the machine are imageable by said at
least one sensor, and wherein said means for analyzing determines an
10 indication of the presence, absence or quality of at least one of the
parts; and

means for wirelessly transmitting said indication to the
machine, wherein the operation thereof is responsive to said
indication.

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